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Report to the 52nd Legislature

Montana Department of Highways

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Highlights

- Major changes to the federal highway program are proposed, the effect of which will be to sharply reduce funding to rural states like Montana. A great deal is at stake in the upcoming battle in the Congress over reauthorization of the federal highway program.

- Despite this future uncertainty, progress continues on the state's highway system. From July 1989 through June 1990, 810 miles of highway improvements were let to contract. Over 90 percent of the work is being done by Montana contractors, with the benefits felt in every corner of the state.

- Montana's highways are in better shape today than they were a decade ago and much of the improvement can be credited to the state-funded construction program. Maintenance work is being focused where it's most effective—on preventive work, rather than on holding poor roads together with patches. This shift, in turn, allows the department to make good progress on the backlog of pressing reconstruction needs. And winter plowing and sanding often become more effective.

- During 1988-89, the department survived the most severe winter season of the decade, with a minimum of complaints or incidents. State roads remained open to traffic, despite the severe conditions, and the public received very good service.

- Changes in the Engineering Division will shorten the time it takes to get construction projects ready for contract. The current six or seven year lead time is being shortened to something on the order of three or four years.

- Similar changes are underway throughout the department. A renewed emphasis on public service and improved accountability through better communication and clear lines of authority and responsibility will lead to better value for our customers—taxpayers in Montana and around the country.

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Montana Highway Commission

Dan Huestis, Chairman - Great Falls

Gerald "Buck" Archambeault - Glasgow

Thomas R. Conroy - Hardin

Roy Duff - Whitefish

Dennis Shea - Butte

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- Montana qualified for $12 million in "bonus" federal highway funding over the last biennium. It became available under the "August grab bag" program whereby states that can't use all their federal spending authority, for whatever reason, release it for those who can. Montana has consistently qualified for these bonuses over the past decade and they'll be taken into account in planning the future construction program.

- Approximately $3 million per year still goes to the off-system bridge program in Montana. It accounts for 35 percent of the federal Highway Bridge Replacement and Rehabilitation Program, the maximum allowed by law on local government bridges, and provides for replacement or rehabilitation on an average of ten of the most seriously deficient bridges each year

- Numerous accounting functions have been completely computerized over the past year in the department. The result is considerable time savings, quicker payment of invoices, contracts and employee compensation, and significant cost savings to the state. In the not-too-distant future, a computer-based management tool will be used to bring all the various accounting and other system data together into one comprehensive management system.

- Computer-aided photogrammetry is providing tremendous benefits in project design. Work that once took a number of days or weeks is now being done in hours and cost savings have already covered the expense of the new equipment.

- Montana took another pioneering step this year in finalizing an agreement with Alberta, Canada for joint operation of a commercial vehicle regulation (weigh station) facility at the Port of Coutts north of Shelby. Both jurisdictions will operate out of the same facility, an arrangement modeled after a successful venture with Idaho at the Haugan facility in northwest Montana. The Haugan arrangement was the first of its kind in the nation and the Coutts agreement that followed is the only one of its kind between a state and province. The result is reduced costs for both government and the motor carrier industry.

Our Mission

Our mission is to serve the public's need for transportation by providing quality roads and bridges. These facilities must be safe and provide efficient access throughout the state.

In pursuing our mission, we value the contribution of employees and respect every employee as an important member of the team. We strive to provide clear expectations and effective training.

We value open and honest communication with the public, businesses and government agencies.

We are guided in our mission by a firm commitment to public service and the wise use of resources.

Our aim is to:

- be businesslike, responsible and courteous;
- administer laws fairly and uniformly;
- ensure well-maintained roads and rest areas; and
- encourage public involvement.

Our state road and bridge system is planned and maintained to complement Montana's natural beauty and to help spur economic development. We judiciously use our resources to minimize overhead costs and to consistently produce sound, cost-effective projects.

DEPARTMENT OF HIGHWAYS

STAN STEPHENS, GOVERNOR
2701 PROSPECT AVE.
STATE OF MONTANA
HELENA, MONTANA 59620

December 4, 1990

To the Governor and Citizens of Montana:

With all the uncertainties facing the highway program, a well-conceived plan—for today and for the future—is a must. As this report goes to press, our effort to adopt such a plan is well underway and the results will be evident to all those who take an interest.

Our goals are simple:

- to provide better, more responsive service to the public, in part through better communication, and
- to increase accountability, through clear lines of authority and responsibility.

The changes taking place involve an improved organizational structure and a renewed emphasis on public service. We've recently adopted a mission statement to reflect these changes and they're being kept in mind as we make plans to bring related transportation functions together under a DOT—a Department of Transportation.

Montana is in the midst of one of the most ambitious and productive highway construction programs in state history. And while my tenure at the department is just beginning, I'm confident there's a great deal I can offer to ensure that as this much-needed work is done, our customer's needs and desires are kept clearly in the forefront.

Uncertainty characterizes the highway program at nearly every level. The uncertainty over future federal construction funding and the wholly state-funded construction program necessarily have an overriding effect on the plan we present for the future. This report reflects that uncertainty, but at the same time attempts to define in simple terms what we expect ahead.

It's my pleasure to provide you with this report. As our work progresses, you can expect to hear more about our program and, in turn, I hope you'll let me know if there's any way the department can be of service.

John Rothwell
Director of Highways

AN EQUAL OPPORTUNITY EMPLOYER

Progress on Montana's Highways

One of several sure signs of progress, the last piece of narrow, winding highway on US 93 along Flathead Lake's west shore between Polson and Kalispell was completed this summer.

This beautiful route is now safe and comfortable to drive and "Pray for Me—I drive Highway 93" bumper stickers no longer adorn vehicles all along the way. For the future, projects currently being designed for US 93 contemplate improvements to four-lane standards .

Photo courtesy of Michael Gallacher, *Missoulian*

The most ambitious highway construction project in Montana history will be finished during spring or early summer of '91 in the ***Missoula Highway District***. The 16 mile Troy-Libby project through some of Montana's most rugged and beautiful terrain will have taken roughly three years to complete—one of the most difficult and costly undertakings in our history. These improvements will greatly enhance resident and tourist travel on US 2 in the northwest corner of the state.

A badly-needed reconstruction project in the Bitterroot Valley north and south of Darby is improving and upgrading a 15-mile section of US 93 at a total cost of approximately $10 million. Motorists braved difficult road conditions for longer than first planned or expected on this project, but the end result will be a highway facility that will serve the area well for many years to come.

In addition to these major construction projects, numerous other reconstruction and overlay projects were completed over the biennium in western Montana, including another 9 miles of full reconstruction and 65 miles of paving built through the wholly state-funded portion of the construction program

The same program allowed the ***Great Falls District*** to defer reconstruction by adding a single lift overlay (2-3 inches) to 87 miles of primary and urban highway. In addition, 43.6 miles of primary highway were improved and the service life extended by applying a chip seal treatment. These cost-effective improvements make good use of state funds and, at the same time, save federal funding for areas where it's most effective.

As the condition of the primary system in the district has improved, state construction funds were shifted to reconstruction-type projects—Big Sandy-North and South and 1st Avenue North in Great Falls, for instance, where such work will result in a

tremendous improvement. In addition, planned projects on US 87 between Great Falls and Havre will eliminate the last piece of 50-year-old highway by 1993, replacing a narrow, difficult stretch of road with a smooth, comfortable highway.

The most noteworthy construction project in the ***Glendive District*** during the 1990-1991 biennium was the completion of the eight-mile Circle-North project. The project was a first step toward reconstruction of all of the old road on Montana 13 between Circle and Wolf Point over the next three to four years .

State construction funding has resulted in significantly improved riding surfaces on many miles of 40-plus-year-old highways. Roads which were formerly a continuous series of patches have been leveled and repaved to provide a uniform and much-improved riding surface.

On many miles of newer roads, state funds have also made it possible to do the work necessary to preserve and renew the pavement surface. This work would not be possible with existing maintenance equipment and personnel, but small and moderately sized contracts with private-sector firms using state construction funding now make such work practical.

Noteworthy projects in the ***Billings District*** include the urban Hilltop Road project, a major four-lane improvement between "the Rims" and the Billings Heights area, and construction of three major bridge structures over the Yellowstone River—at Greycliff, at Duck Creek (both now under contract) and the major structure, the East Bridge of Billings, which is scheduled for contract letting in 1991.

The state-funded construction program has allowed for improvements on low-volume roads in areas that wouldn't otherwise qualify for funding due to federal restrictions. Over the past four years, such improvements have extended the service life of approximately 120 miles in the Billings District alone, improvements that will serve Montana's smaller communities for many years to come.

One of the best-known projects completed in the ***Butte District*** recently is the 12 miles of reconstruction between Avon and Elliston on US 12. In addition, paving projects were completed within the urban areas of Butte, Livingston, and Bozeman in 1990 and overlay and seal work on approximately 43 miles of orphan and primary highway in the Butte District. For 1991, another 30 miles of pavement preservation work is planned.

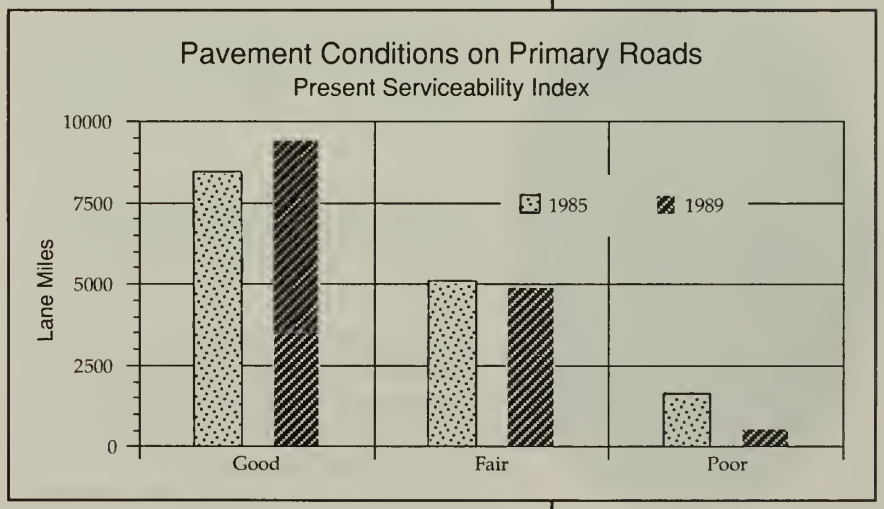
Cost Effective

State-funded highway preservation is one of the most important and cost effective things we do. For the past several years, the department has spent $8 to $10 million on the program each year. This typically allows modest improvements on about 200 miles of highway—improvements that are intended to last about ten years. We expect that many will last even longer.

If state-funded projects had to be cut, these highway preservation projects would be the last to go. Similarly, if the state funding would lapse and then be reauthorized, these would be the first projects added back into the program. Pavement and other preservation projects are among the state's "best buys."

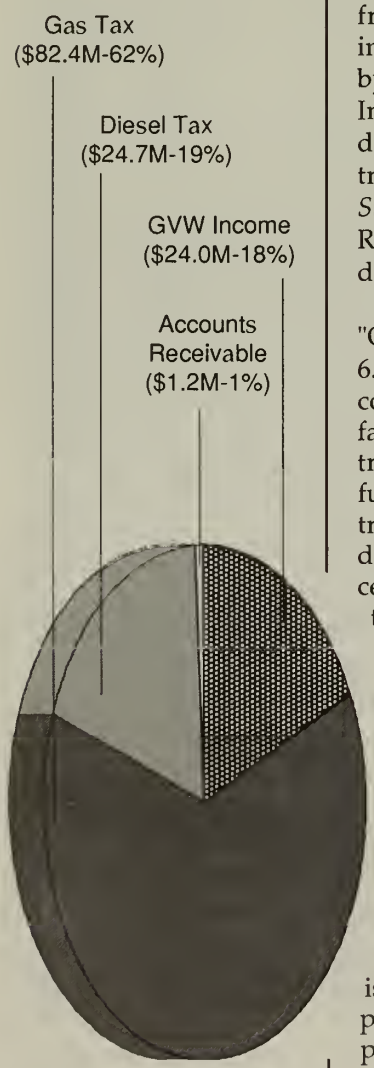
Better Roads

Based on the latest available pavement condition data, Montana's interstate and primary highways are at their highest serviceability level since systematic measurements began in 1983.



Highway Special Revenue Account (state funds)

1991 Projected Revenues ($132.2M)



Approximately 1000 lane miles of highway have been upgraded from the poor category to the good category between 1985 and 1989. This was accomplished while still keeping up with overall road deterioration taking place over the same period. And although the indicator is a scientific measurement used primarily by planners, it reflects progress that's easily seen and enjoyed by motorists. These roads are much better to drive on—for Montanans and for visitors alike.

During the 1983-1988 period for which data is available, primary-system pavement mileage in the "fair to poor" serviceability category decreased 32 percent. At the same time, the "good" category pavement mileage increased by 65 percent.

Interstate pavement mileage in the "fair to poor" category decreased 54 percent from 1983 through 1989. "Good" interstate pavement mileage increased by 20 percent during the same period. Improvements such as these have a direct effect on the cost of travel and transporting goods. In its report *"1990 State Highway Funding Methods,"* The Road Information Program (TRIP) describes these costs:

"Operating costs for a tractor trailer are 6.3 cents per mile higher on a road in fair condition than on one recently resurfaced. Since large combination trucks travel about 5.2 miles per gallon of diesel fuel, roads in fair condition increase truck costs the same as if the tax on diesel fuel had been increased by 32 cents per gallon. A similar cost to auto travelers can be calculated as 38 cents per gallon on fair-rated roads," according to TRIP.

As TRIP points out, there's a cost for maintaining and upgrading roads, but the cost of neglect can be much higher.

There are still about 600 lane miles of road rated in the poor category in Montana and state and federal funding is necessary to continue reducing this poor category mileage in order to provide the service the public expects. ❖

Funding the Highway Program

The federal-aid highway program involves a reimbursement process that routinely spans several years—a process unlike any in traditional government or business financing. State transportation departments must not only "advance fund" construction project costs prior to federal reimbursement, but also maintain a cash flow sufficient to match future federal funding *(obligation authority, sometimes called spending authority).*

As a result, revenue must be collected in advance of construction spending to ensure cash is available to pay contractor payments when the work is done.

The size of the highway program and the timing of these expenditures sometimes results in large cash balances, such as the current situation in Montana. The substantial balance in the Highway Earmarked Account—something on the order of $90 to $100 million—is essentially spoken for, with expenditures exceeding revenues by $20 to $30 million per year through 1994. At that time, the remaining balance will reach the minimum level for prudent management—about $10 million.

Put another way, the current large cash balance is an aberration—a result of the unusual nature of highway construction funding.

A series of bonds sold in the 1980s to fund an accelerated federal-aid highway program (predominately interstate highway construction) and the wholly state-funded RTF program substantially contributed to the relatively large cash balances that will continue through the end of the authorized state-funded program in 1993.

Bond proceeds were fully expended in October 1990. The balance in the Highway Earmarked Revenue Account will provide the source for state matching funds and wholly state-funded construction through 1994, resulting in a rapid drawdown of the account.

Montana's State-funded Construction Program

Montanans realized early in the last decade the federal-aid program simply couldn't meet our transportation needs.

The 48th Legislature addressed the shortfall in federal funds by creating the Reconstruction Trust Fund (RTF). It was established in 1983 as a ten-year effort to reverse the deterioration of the state's primary highway system funded by an increase in motor fuel taxes on gasoline and diesel and dedication of a portion of the coal severance taxes.

But while the 48th Legislature authorized an annual $40 million program, it was never funded at that level—spending will average about $30 million per year.

Mineral royalty revenues and a portion of the coal severance tax were initially dedicated to the account. Mineral royalties averaged $8 million per year through fiscal year 1986, but the funds were diverted to the School Foundation Program in the 1986 Special Legislative Session.

Beginning in July 1985, 2 percent of coal severance tax proceeds went to the RTF account to pay for construction projects. This amounted to approximately $1.7 million and increased to 8 percent in July 1986, for approximately $6 million.

The share further increased to 12 percent in July 1987 and will continue through June, 1993, when it will "sunset" under current law. The amount generated, however, has declined from about $10 million in fiscal 1988 to a projected $4.8 million in 1993 due to the sharp decline in coal tax revenues.

Keeping Pace

Today we face a critical juncture— to continue the progress on the state's highways, Montana must have some form of state-funded program.

First, the level of the federal program simply isn't large enough to meet the needs in Montana. As the needs assessment later in this report indicates, a significant state-funded program is necessary just to meet basic needs.

Further, the federal program meets Montana's major reconstruction and repaving needs on highways new enough to satisfy federal design standards. But those standards are high, and are generally beyond the basic needs in Montana. Most of our roads are over 20 years old and can't be paved or rehabilitated using federal funds without also spending a substantial amount of state money to meet current federal standards.

In other words, federal aid often brings with it expensive federal requirements that aren't strictly necessary by Montana standards.

There are other benefits to a state-funded program, as well. Routine stewardship projects such as seal and cover and sign replacements aren't routinely eligible for federal-aid funding. This work is done efficiently through small and medium sized contracts, a method we've used to great benefit since the inception of the RTF program.

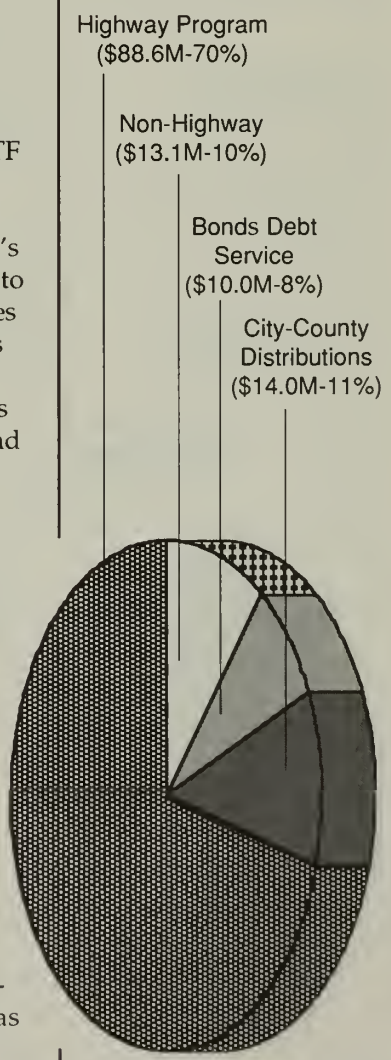
While the dollar volume isn't large, there's an on-going need (and a distinct benefit) to act quickly when surprises or emergencies develop. These range from traffic signals caused by changes in land use to culvert failures due to storms. The department is able to respond much more effectively and promptly when we can avoid touching many of the bases that are required by federal funding.

Put simply, the federal-aid (FA) program does not provide the funding or flexibility necessary to keep pace with Montana's highway needs.

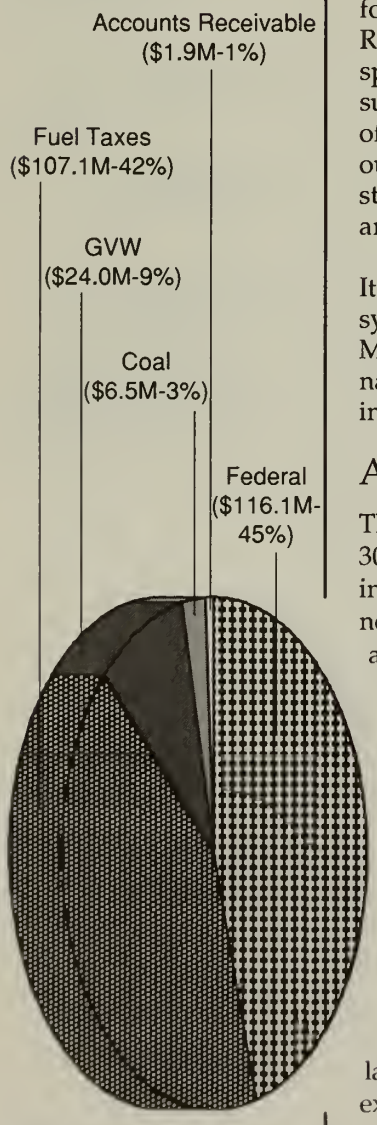
Montana receives about $100 million per year in federal-aid highway funds—about two-thirds of the total construction budget. But the current federal-aid highway act ends September 30, 1991 and there are proposals that would drastically change matching ratios, apportionment formulae and many other aspects of the federal-aid highway system as we know it today.

Highway Special Revenue Account (state funds)

1991 Projected Disbursements ($125.7M)



1991 Projected Revenue All Funds ($255.6M)



And changes in the federal-aid program aren't the only funding challenges looming on the horizon. In addition, starting in '93, the department will start paying off the principal of the bonds that were sold in the '80s to help finance the RTF program.

This, together with rising maintenance and engineering costs will boost program expenses beyond income.

Even if Montana and like-minded states can preserve the status quo at the national level, we face an increase in state fuel taxes just to continue to match federal aid. Of course, if we lose federal aid, the matching ratio is changed, or both, Montana could face an even greater fuel tax increase just to "stay even."

Traditionally, Montana has received about two dollars in federal-aid highway money for every dollar we send to Washington. Rural states with vast road mileage, but a sparse population and a small tax base to support it, have long relied on this system of distribution. "Bridge states" such as ours must maintain a relatively high-standard road system to serve commerce and travel for the entire nation.

It's in the national interest to bolster this system with federal funds, much as Montana-generated taxes support other national programs not necessarily providing proportional benefits to our state.

A New System?

The 1991-1993 period marks the end of the 30 year national effort to complete the interstate and defense highway system—now commonly called the interstate. It also marks the end of the ten year Reconstruction Trust Fund program era in Montana. As a result, the highway program and the basic makeup of the federal highway systems themselves may be headed for dramatic change.

With the interstate highway system essentially complete now, many of the more populous states are demanding change.

They want to shift federal funding to large urban areas, in some cases at the expense of Montana and other rural states.

They propose redefining the federal-aid highway systems to include two classes of roadway; a relatively well-funded "highways of national significance" or HNS that includes the interstate system and a portion of the primary system, and a "flexible system" which includes all remaining federal aid routes, but would only qualify for sharply reduced funding.

The effect would be to reduce funding to Montana and other rural states by reducing the availability of federal-aid funds for all roadways classified as "flexible system" routes. Montana would have difficulty even keeping a paved surface on some primary, secondary and urban roads under the proposed new system. Major reconstruction of any significance on the state's highway system would necessarily depend on a major new state-funded program.

Today Montana has about 1200 miles of federal-aid interstate highways, about 5500 miles of federal-aid primary highways, about 4800 miles of federal-aid secondary highways, and about 360 miles of federal-aid urban routes.

Under the new concept, Montana's system of Highways of National Significance would total about 2700 miles. Current formulas mandate that it would include the 1200 miles of interstate plus roughly 1500 miles of our primary system. This would leave the other 4,000 miles of primary highway, plus 4800 miles of secondary and 360 miles of urban roads on the new flexible system.

Under this proposal, the federal government would probably still pay the lion's share of construction and reconstruction on the HNS.

But there will be a strong push to turn the flexible system over to the states. The matching ratio could change from the current 78 percent federal - 22 percent state share we have been enjoying to something closer to 50-50.

Federal funds would be allocated to the states based strictly on what they contribute rather than based on need.

Under this new concept Montana would probably be able to keep the 1200 miles of interstate and 1500 miles of the most heavily traveled primary that would be on the HNS in a good or better condition than it is now. But the other 9,160 miles of primary, secondary and urban roadway that would become part of the flexible system will be seriously underfunded.

Tough Choices

One likely result of all this is that the legislature would have to enact legislation to provide for the distribution of whatever flexible system funds Montana receives. The difficulty in distributing sharply limited funding across such a vast and heavily depended-upon road system can't be overstated. Many Montana communities will feel the effects of such cutbacks.

Until the legislation is drawn and enacted, it's difficult to say what the net effect on Montana would be, but a reduction in total federal-aid highway funds of from $30 million to $50 million is possible.

Montana and other "donee states"—those receiving more in federal revenue than they pay in federal tax—are doing everything we can to preserve the status quo while the donor states—states receiving back less than a dollar for each one they send—push to get back a greater share of the gas tax they send to Washington.

One likely conclusion to draw, though, is that alternates to fuel tax increases will have to be explored. The level of maintenance on many or all of Montana's highways may have to be reduced or some routes now maintained by the Department of Highways may have to be turned back to the local governments.

Neither of these alternates will be popular. But they may have to be considered as potential alternatives to fuel tax increases if federal legislation forces drastic changes in the way highways are funded.

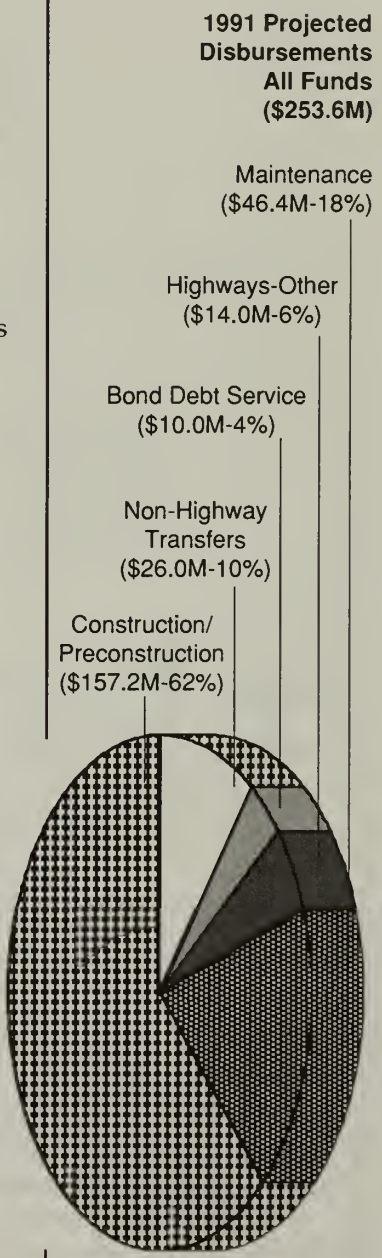
As this report goes to press, the department is planning for significant changes in construction funding for federal fiscal year '92. Despite threats of cuts, funding is slated for a healthy increase—roughly $20 million. Word was received too late to be reflected in this report but a ***supplement explaining the changes will be available on about January 1.***

Clean Air Legislation

New federal clean air legislation may impact areas of Montana that do not meet National Ambient Air Quality Standards for carbon monoxide or air borne particulates. In these areas, plans will have to be adopted for achieving acceptable air quality levels by specified target dates.

If attainment isn't met by these dates, federal funding for highway projects could be jeopardized. Alternately, highway construction would be allowed to proceed only on safety projects and projects that can be shown to improve air quality in the non-attainment area.

Currently, Missoula, Great Falls and Billings are cited as being in non-attainment status for carbon monoxide. Additionally, nine cities have been identified as non-attainment areas for particulate matter, of which road dust is a major source. ❖



Highway System Needs

While there's been substantial progress made in improving Montana's highways during the last decade, there are still a great many needs remaining. These needs reflect an ever aging and deteriorating highway system.

Montana's recently completed interstate system is generally in good condition. Most of the improvements to the interstate system in the 1990s will involve maintaining existing pavements through repaving and pavement sealing projects.

The most pressing concern for Montana's highway system lies on the primary system. After projects that are currently planned through 1993 are built, the 5500 miles of primary system will still include:

- 2500 miles over 20 years old,
- 1650 miles over 30 years old and
- 350 miles over 50 years old.

Twenty-one hundred miles of primary road will still have a width of less than 28 feet, considered the minimum design standard for even the least traveled routes.

Bridges, too, are a significant concern for Montana. Statewide, we have over 1800 timber structures which, if not deficient, are at least antiquated. After 1993, we anticipate there will be 227 deficient on-system bridges (bridges on the federal-aid system) and 755 deficient off-system bridges in need of replacement or major rehabilitation.

The department recently completed a study of highway needs encompassing the time period 1992 through 2001. The study focused on two program levels: full needs and minimum standard needs.

The full needs assessment is based on the highest and most desirable construction design standards as well as more frequent repaving and re-sealing of pavements. We estimate it would cost nearly $500 million per year (in 1990 dollars) to meet these needs.

The minimum standard needs are based on reconstruction to lower standards and less frequent sealing and repaving. We estimate costs in excess of $175 million per year.

Under both scenarios, the interstate system would be kept at its current high standard of service. Under the minimum standard scenario, the other highway systems would receive regular seal and cover, be repaved rather than rebuilt whenever possible, and be rebuilt to less than full standards. This is essentially the standard currently being used by the department. ❖

Ten Year Needs (in Millions)

System	Full Design Standards	Minimum Standards	State Funds Required—minimum standards	
			Matching	Wholly State-funded*
Interstate	$500	$395	$36	$0
Primary	3246	793	174	80
Secondary	772	316	70	116
Urban	150	145	32	0
Orphan Plant	192	33	0	33
Bridges	81	81	16	0
Subtotal			328	229
Total	**$4,941**	**$1,763**	**$557**	

All costs are expressed in 1990 dollars.
*Needs ineligible for federal funding; that is, needs the state must meet.

Closer Look at the Department

Highway construction in Montana has traditionally been let to private contractors through the competitive bid process. This working relationship between the department and over 125 private contractors has functioned successfully for decades.

Over half of the department's annual budget is paid to private-sector firms for construction and consultant services.

Roughly 25 percent to 30 percent of the department's project development work, which includes surveying, designing, and right-of-way appraising and negotiating, are contracted to private consultants.

When equipment and other purchases are included, the total payments to the private sector were nearly two-thirds of the department's annual budget—over $157 million of the $253 million fiscal year '90 budget.

Further, roughly 90 percent of the construction contracts awarded during that period went to private sector firms in Montana. Most of the remainder went to firms in neighboring states—particularly, firms from North Dakota.

Privatization

In 1989, Governor Stephens requested department directors to identify additional programs or functions that could more efficiently and cheaply be performed by the private sector. A group of private business people helped the department identify two specific privatization activities.

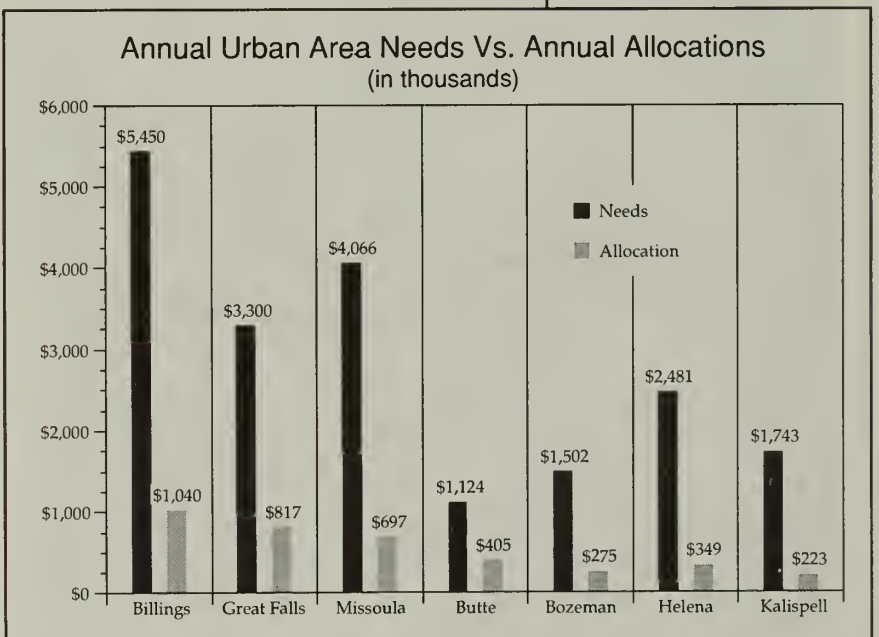
The first activity identified was paint striping on the interstate system. This operation was reviewed to determine if privatization would economize the product or the service. In the summer of 1990, a contract was awarded to a private contractor to re-stripe the 300-plus miles of interstate highway in the Butte District. The results of this contract are now being reviewed to determine if private striping is more economical than work done by the state. The results of the review will determine the shape of the future striping program.

The second set of activities identified was the planning, design and right-of way acquisition on federal-aid secondary and urban projects—projects on county roads and city streets eligible for federal funding.

Privatization in this area would allow department personnel to concentrate on primary and interstate projects and tend to remove the department from the recurring controversy over the amount of time and money spent developing and constructing secondary and urban projects.

It would also transfer responsiblity and authority for the quality of the finished product, right-of-way acquisition, scope of work and alignment to the government entities closest to and most interested in the work. Department of Highways' responsiblity would be limited under this scenario to simply assuring that the projects meet guidelines for federal funding.

The shift of responsibility and control is already underway in a few instances. Construction of a proposed secondary road project north of Whitefish involved complex questions of costs, standards and impacts to a sensitive area. The planning and design of this project will be accomplished by a consultant working for Flathead County.



Seven urban areas in Montana have established comprehensive transportation plans. These plans help provide a picture of needs in each study area and provide a perspective on the magnitude of the urban problem. The chart indicates average annual needs based on these plans. Urban area needs are compared to annual federal-aid urban system allocations.

Obviously, many needs can't be met—federal funding simply isn't adequate and local governments often don't have the means to raise additional funding.

In terms of established priorities (not total needs), from Federal Fiscal Year 1991 through 1997 there is $147 million worth of secondary system work and $61 million on the urban system needed. Through the same time period, we project statewide allocations of $95 million and $32 million, respectively. In other words, needs greatly exceed funding.

Other privatization initiatives reviewed include:

- maintenance patching and other pavement repairs
- right-of-way acquisition
- engineering
- motor pool services, and
- equipment.

The maintenance function reviewed involves the purchase and placement of road repair materials. Privatization would allow private industry to supply crushed raw material and road oil and supply the mixing and placement of the patching material, possibly through the use of more effective "hot mix" procedures.

In 1989, a cooperative effort between the department, the Forest Service and the Blackfeet Tribe corrected a long-standing safety problem at Marias Pass on US 2. The Theodore Roosevelt Monument, dedicated in 1930, was originally located in the center of the highway and as traffic increased, it became a hazard that contributed to many injury accidents.

The project completed in the spring of 1990 included moving the monument over 200 feet and installation of a rest stop and viewing site for the area's three monuments. The department was nominated by the Forest Service for the USFS 1990 Public Service Excellence Award for its role in the effort.
Montana Department of Highways photo by Travis Smith.

Limited privatization was begun in this area in fiscal 1990, with the purchase of over 125,000 cubic yards of patching material. The department intends to expand the effort wherever possible.

The department also uses private consulting firms in some instances to acquire rights-of-way for highway projects. This process helped the department, for example, to accelerate the Sand Springs-West project on MT 200 west of Jordan. It's currently used on six projects and could be expanded in response to pressing needs.

For years, the department employed consulting firms to perform engineering design work—specialty consultants from archaeologists and historical experts to hazardous waste cleanup experts. In the coming biennium, more money is budgeted for this activity, partly due to increased requirements for these services and partly due to the department's inability to compete in the hiring of specialty workers.

Operation of the State Motor Pool in Helena, which is administered by the department, was investigated for possible privatization, as well. But after soliciting proposals from a private sector rental company and an automobile dealership , it was concluded the operation of the existing motor pool is far more economical. In a "nutshell," the state has fewer overhead costs and no need to generate profits.

Likewise, some observers inside and outside the department expected the fabrication and assembly of highway snowplows, now done in our Helena equipment shop, would lend itself well to privatization. Again, proposals to perform this work were solicited and it was apparent the existing operation is economical and still makes good sense. Those who'd like more information these issues are encouraged to contact the department. ❖

Initiatives Worth Noting

Changes in the way business is routinely done are becoming increasingly common at the department. Improvements in West Yellowstone and the Johnson Lane Interchange in Billings are recent examples—instances where innovative funding arrangements made the difference between building or not building.

In addition, the department is working with the Town of Eureka to reconstruct US 93 through the community. The Department of Highways will put up most of the money, but the survey, design, and right-of-way work will be accomplished by a private consultant retained by the Town of Eureka.

The actual construction will be accomplished by a private contractor, with contract inspection and administration undertaken by local government and their private consultant.

The advantage of such an arrangement is that the town has the opportunity to take the lead and come up with a new highway that's compatible with the community's needs and desires, while at the same time improving service to through traffic.

Being responsive to community needs is an important part of the department's renewed emphasis on public service. On many issues, whether it be signing for community attractions, priority setting on local road projects or the myriad other instances where the department necessarily works with the public, a concerted effort is being made to provide quality service.

New Interchanges

The interstate system is now complete and the so-called I-4R needs (interstate reconstruction, rehabilitation, resurfacing and restoration) are being met in Montana.

With this in mind, the Highway Commission felt the department could entertain the idea of new interchanges where new access is justified. As part of the ground rules, any new access to the interstate system must be supported and nominated by the appropriate local governments. Access also must be justified in terms of need (for instance, traffic operation improvements or economic development) and financial and engineering feasibility.

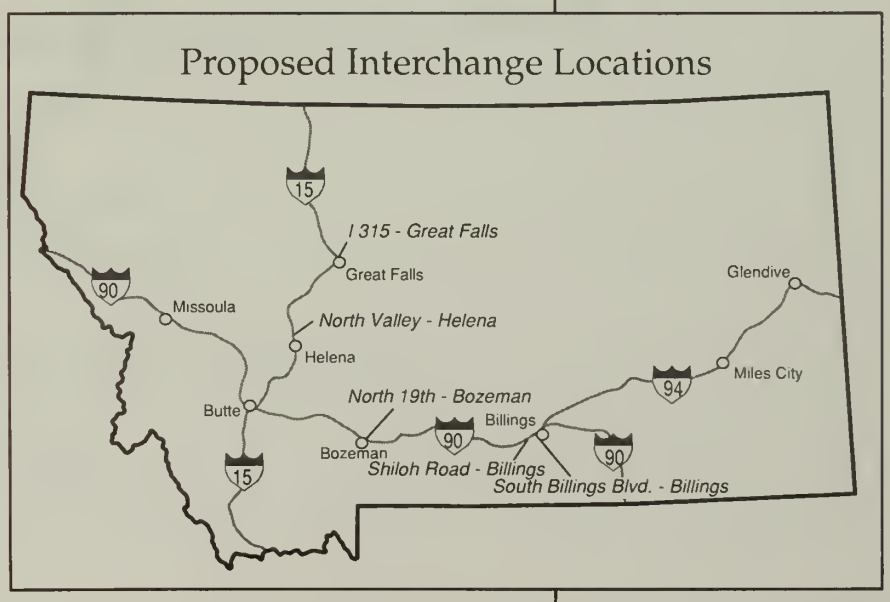
In 1985, six new interstate interchanges were nominated by local governments for construction. Five have been approved by the Highway Commission for preliminary engineering:

Shiloh Road - Billings
South Billings Boulevard - Billings
North Valley - Helena
I-315 - Great Falls
North 19th - Bozeman

In addition, the Butler Creek interchange near the Missoula airport has been nominated, but has not yet been approved by the Highway Commission.

Memorandums of Understanding (MOU) between the department and local governments are written for each of the five approved interchanges in a spirit of cooperation and understanding. A key part of each MOU spells out that changes such as cuts in the federal-aid program may force reducing or eliminating the new interchange program.

(Continued on page 16)



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Great Falls
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Butte
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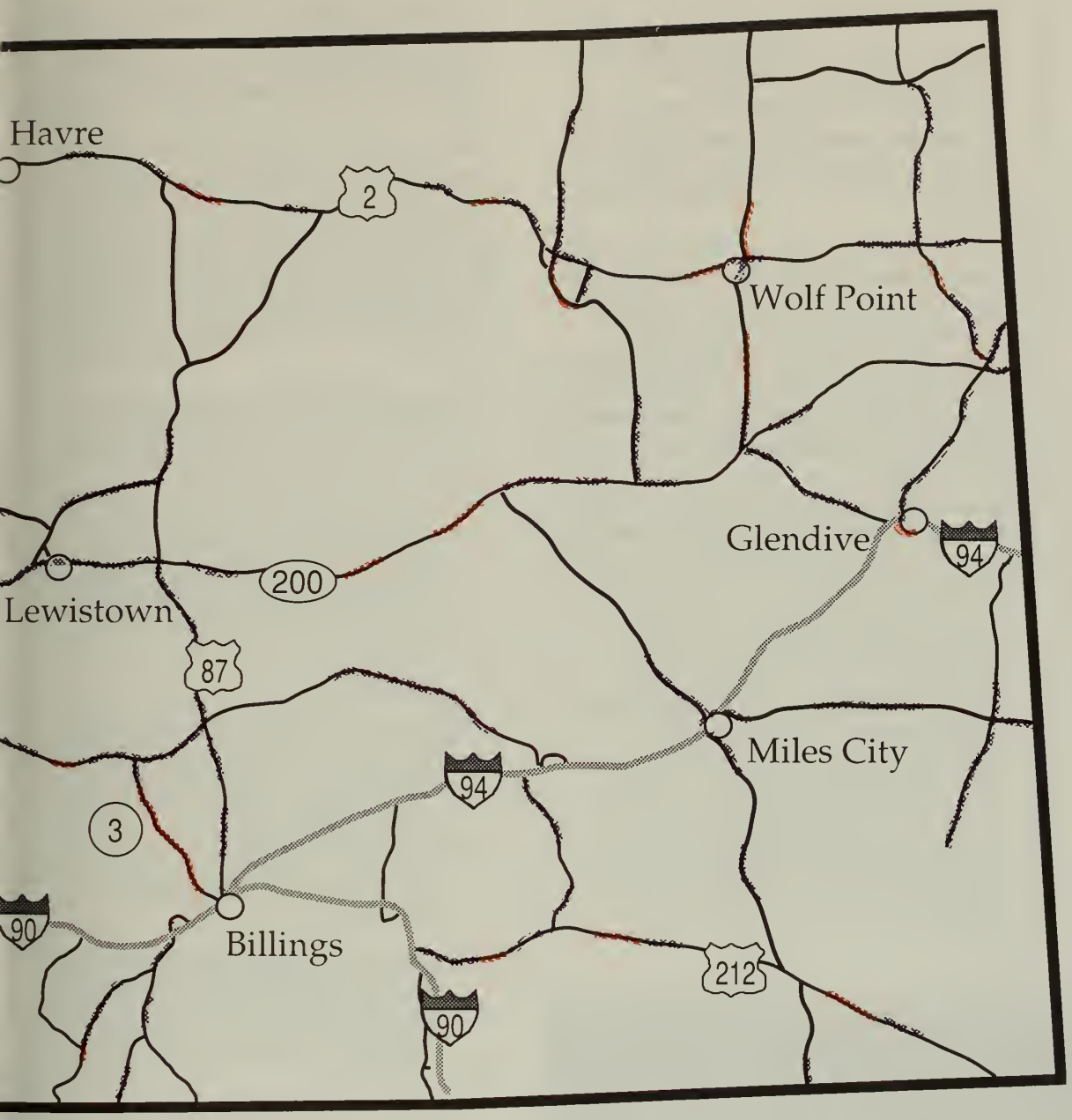
Bozeman



Montana Highway Program
Major Primary System Projects

Projects completed or under construction 1/81 - 6/90

Future construction 7/90 - 6/93

(Continued from page 13)

Bikeways and Footpaths

One of the actions taken by the 51st Legislature revised Montana's bikeways and footpaths law to require a yearly average expenditure of $200,000 over five years.

Sufficient work is now planned in the five-year construction program to comply with the new state law. In addition, the department has been pursuing the possibility of identifying cooperative free-standing bikeway or footpath projects with local government agencies.

One example of such a cooperative effort involves the Fort Belknap Indian community, U.S. Bureau of Indian Affairs and the Department of Highways. The project involves designing and constructing a 1.8 mile combination bikeway/footpath adjacent to Montana Highway 66 in a subdivision area south of the Fort Belknap Agency. Such a facility will improve safety for motorists and pedestrians in the area—an example of the department's effort to assist local agencies with projects that involve non-vehicle traffic. Other projects are in the early stages of development and there may be more in years ahead.

Photo courtesy of the *Hungry Horse News*

Scenic Byways

The US Forest Service recently established the National Forest Scenic Byways program to identify and sign public roads that offer access to scenic areas. Some of these roads are on the federal-aid system and under Montana jurisdiction through the Department of Highways; others are on forest roads or on secondary roads under county jurisdiction. In addition, Congress and the Federal Highway Administration are taking an interest in such programs.

The department continues to express reservations about such plans based on past experience and study in Montana. Some of our concerns include:

- concerns over "re-routing" traffic over roads with narrow pavement and poor alignment, something that will inevitably result if the Forest Service "byways" program intent is achieved.
- future maintenance and construction demands to bring these routes up to standard for increased recreational and tourist traffic,
- information and route signing requirements,
- 4(f) issues (federal requirements for protection and unusual treatment of places of historical significance, parklands, wildlife and the environment), and
- demand for additional facilities where right-of-way is limited, expensive, or even unavailable.

With a substantial increase in construction funding, these byways can be brought up to national standards and be made relatively safe for recreational traffic—long vehicles, vehicles with boats or trailers in tow, etc. But in many cases, the costs of right-of-way and construction will be very high, especially given the terrain in such areas as Montana.

Given the funding situation at both the federal and state level, a substantial

"byways" construction program will be difficult to fund and may have to compete for funding with other well-established routes carrying substantially more traffic.

Montana has many routes which pass through what we consider scenic areas. The potential costs and program problems could place enormous financial stress on an already stressed highway program in Montana. For these reasons, the department has been reluctant to embrace such proposals.

Recreational Vehicle Waste Disposal Sites

The department is also studying adding RV waste disposal sites at 11 existing rest areas across the state. Highway maintenance funds, which would be used to maintain these sites, are already stretched thin.

A possible source of funding for building, maintaining and operating the sites could come from a yearly assessment on each RV registered in the state. A fee of just over $5 per vehicle would cover these costs, but would tax only Montana RVs, not those of out-of-state tourists who are the largest users of these sites.

Another option suggests privatizing building, maintenance and operation of the sites. Funding for these options would again come from limited highway resources.

Numerous public and private waste disposal stations are presently in use across the state. The least expensive option proposed involves preparing a map to show the location of these existing facilities.

New Rest Areas

The department is looking for ways to increase the number of rest areas along primary routes across the state at an affordable cost. One proposal given preliminary approval by the Montana Highway Commission involves building or improving existing rest areas in city parks.

A department study identified 14-18 communities where facilities could be built or improved with some financial assistance from the department. Communities were chosen to provide sites more or less evenly spaced along the state's highways. Further, only those sites that would provide easy access to motorists received consideration.

After improvements are made, the communities would operate and maintain these areas.

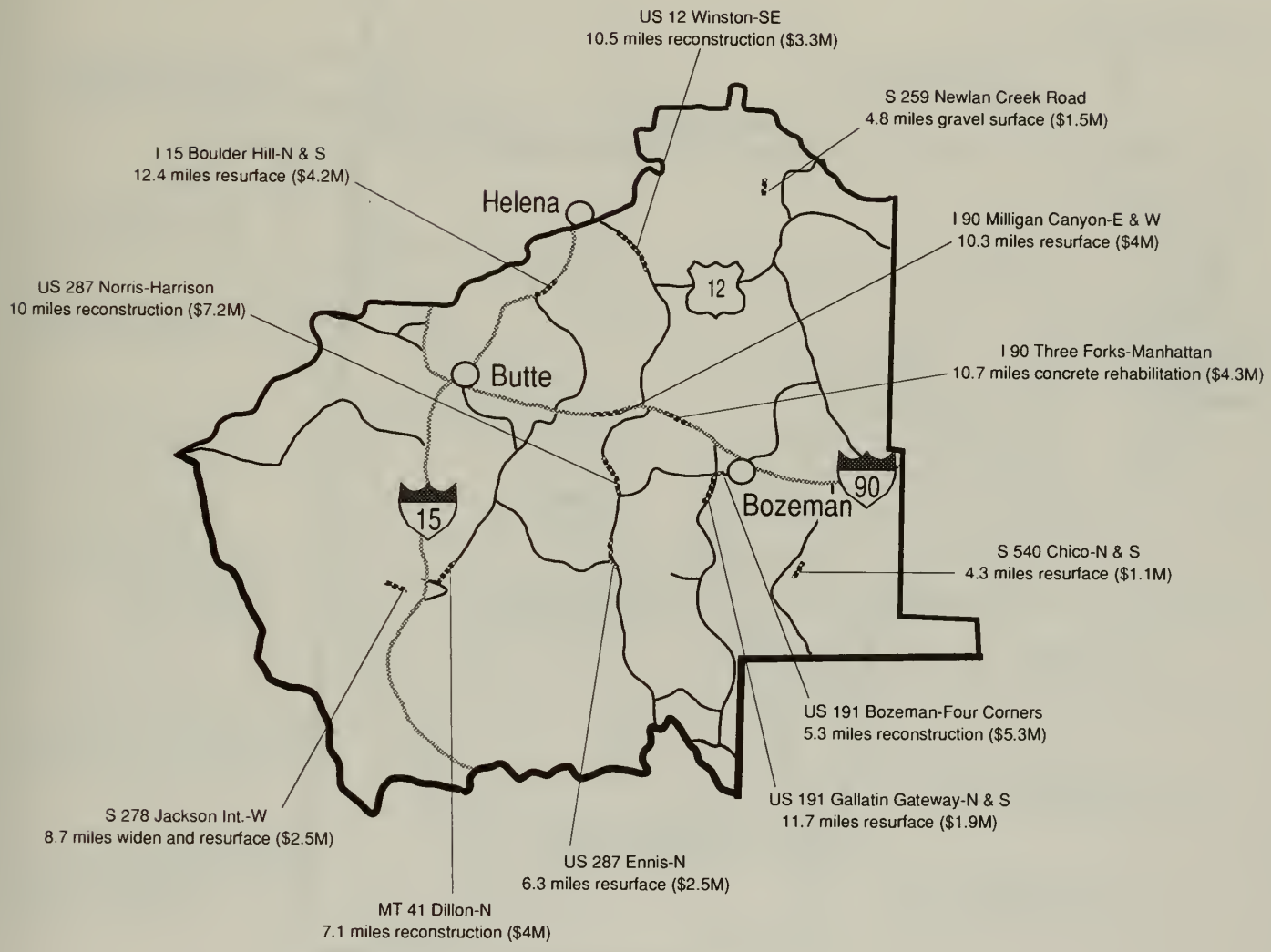
The Montana League of Cities and Towns expressed interest in the concept and the department is currently working with three communities to develop a workable plan for dual purpose rest areas and city parks. This pilot effort should provide experience that can lead to development of additional sites. ❖

Billings Gazette —Woodcock photo

Missoula District Projects 1992-93

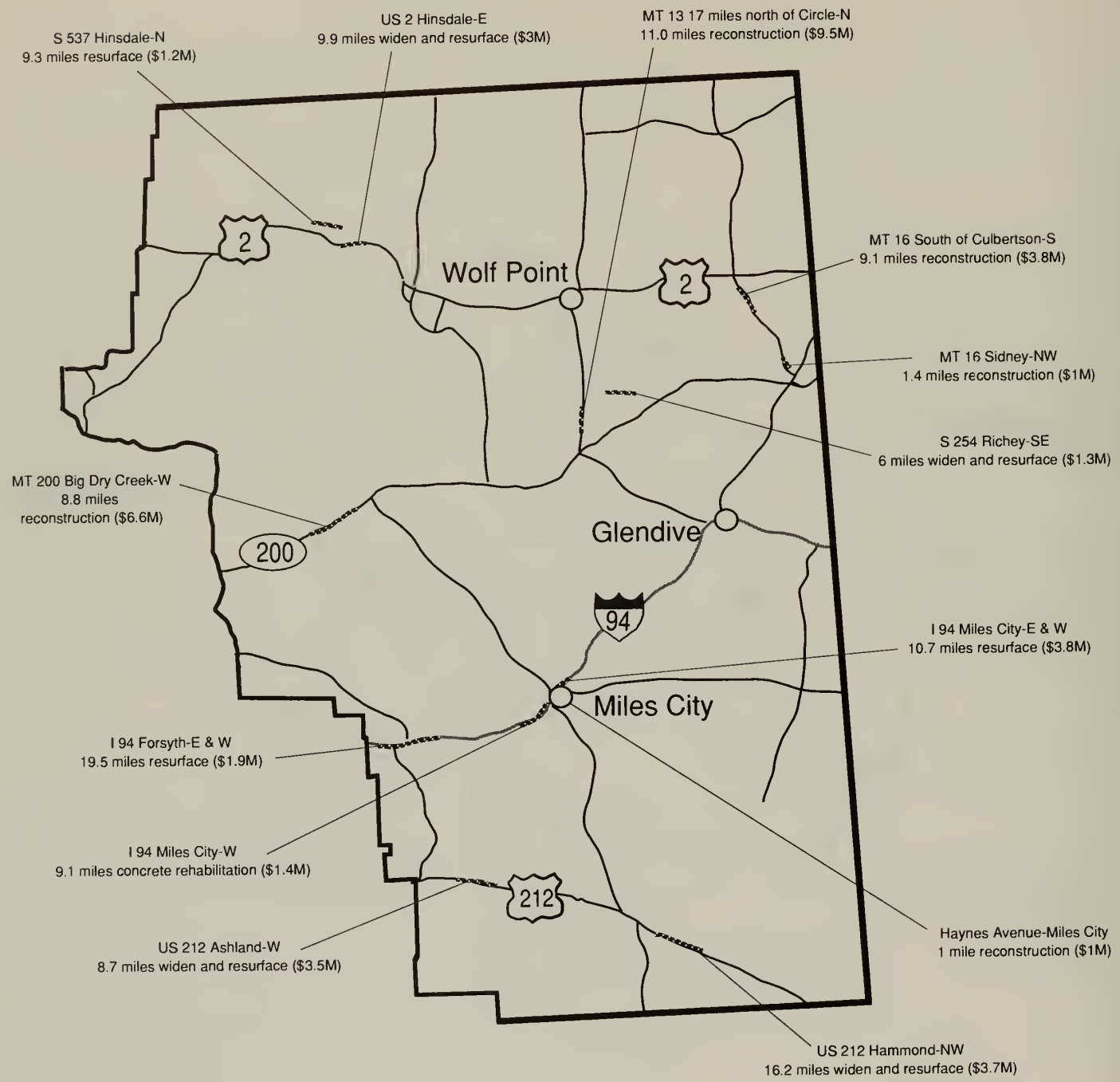
Six additional projects costing under $1 million each include bridge structures, traffic signals and reconstruction totaling $1 million, and highway preservation projects totaling $3 million. One other project consisting of 27 locations on I 15 and I 90 in the Missoula and Butte districts will involve structure rehabilitation totaling $1.5 million.

Butte District Projects 1992-93



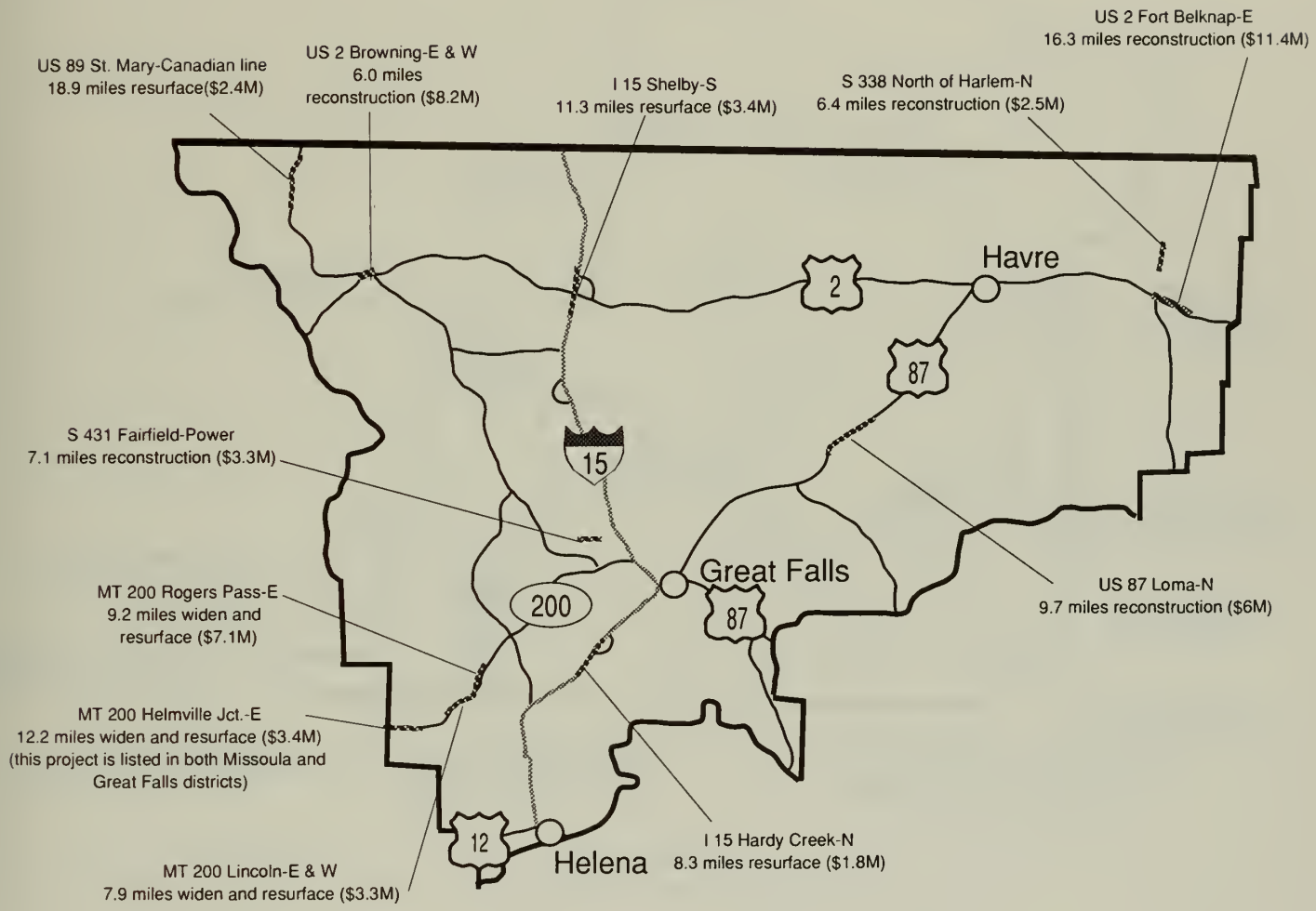
Twelve additional projects costing under $1 million each include lighting, signalization, riprap, slide correction, overlays, reconstruction and structures totaling $2.7 million and highway preservation totaling $3 million. One other project consisting of 27 locations on I 15 and I 90 in financial districts 1 and 2 will involve structure rehabilitation totaling $1.5 million.

Glendive District Projects 1992-93



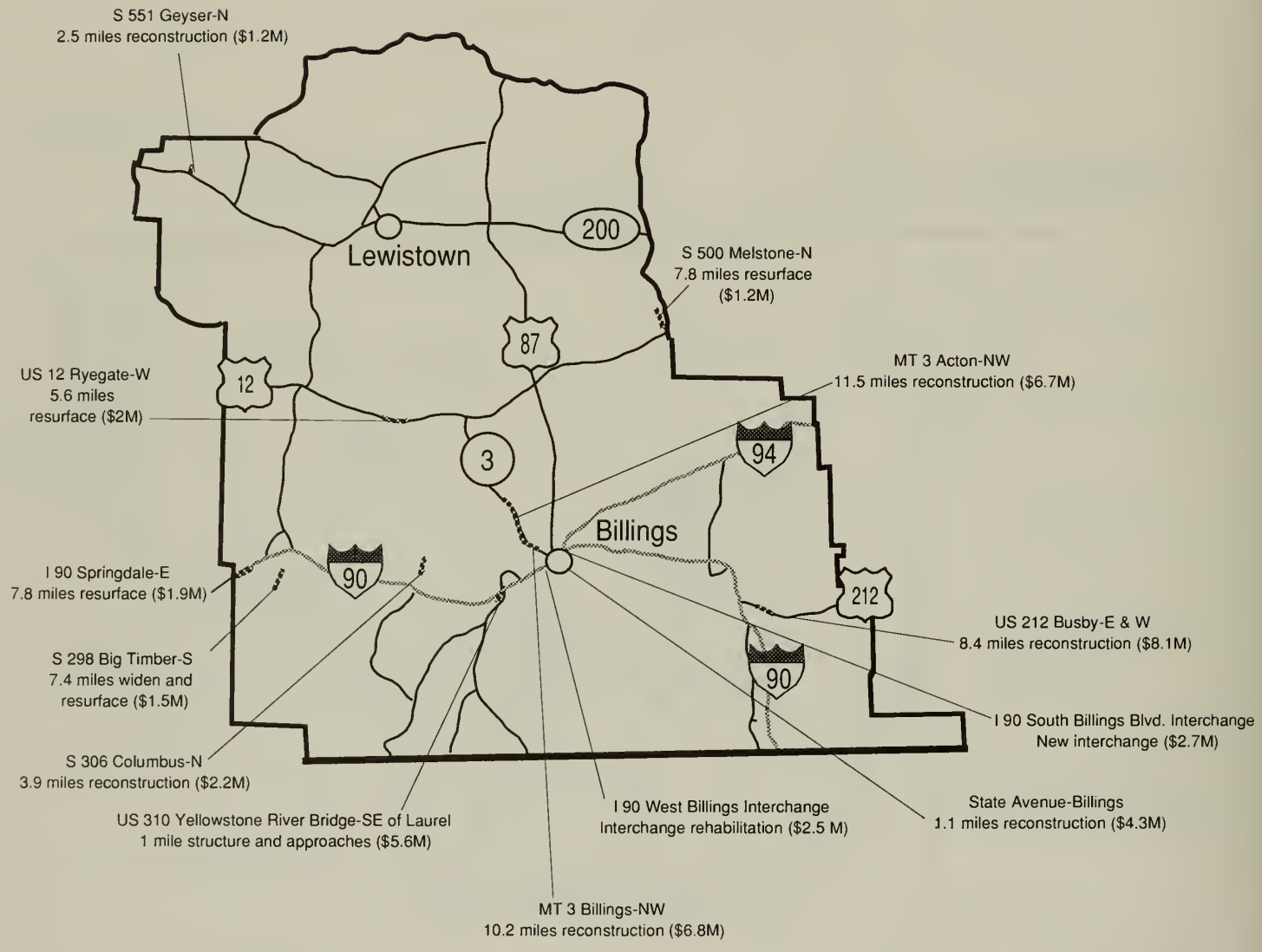
Six additional projects costing under $1 million each include rest area rehabilitation, level and seal and cover, gravel surfacing and structures totaling $2.6 million and highway preservation totaling $4 million.

Great Falls District Projects 1992-93

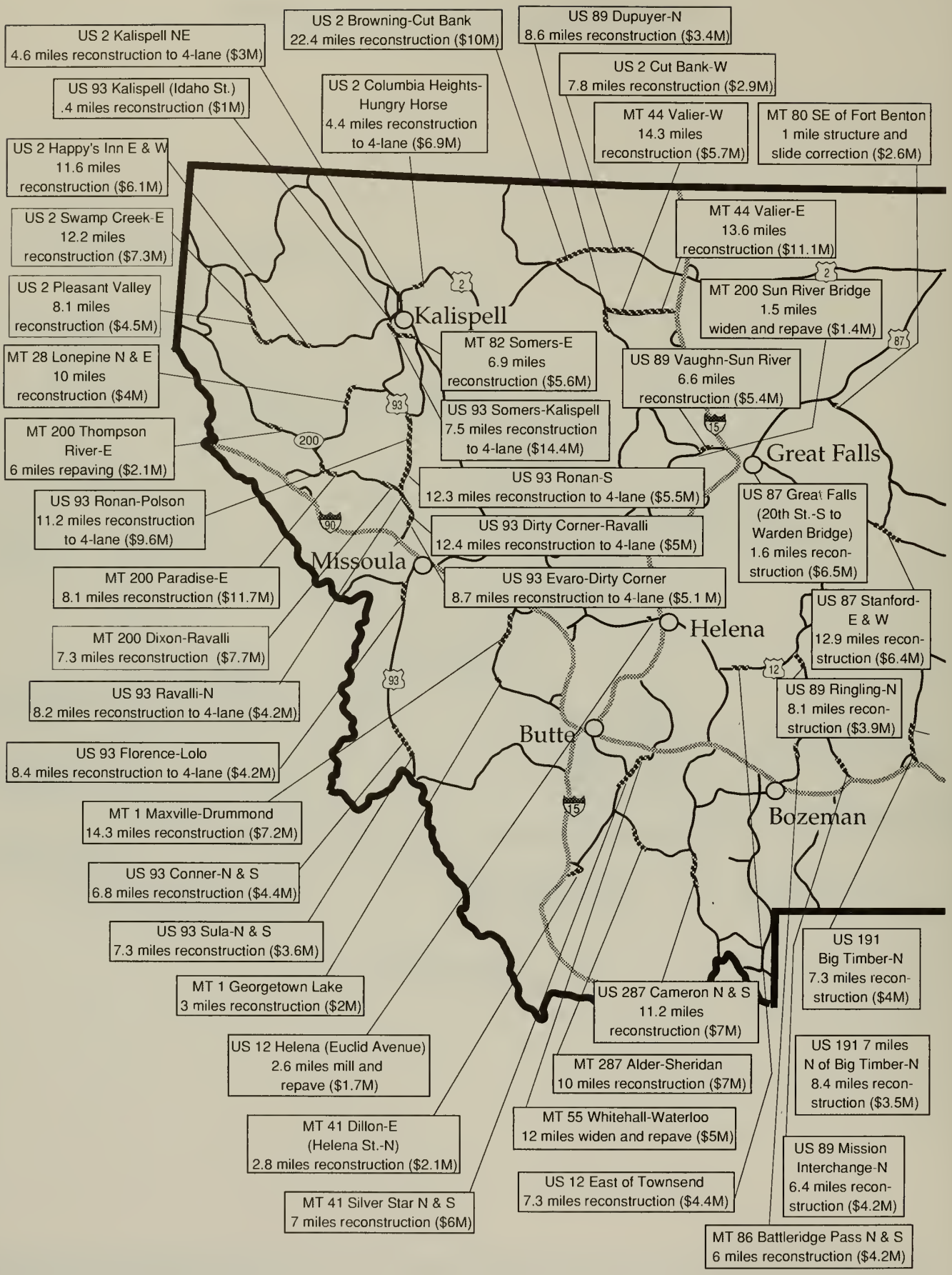


Eleven additional projects costing under $1 million each include ditch rehabilitation, riprap, concrete surface rehabilitation, pavement markings, reconstruction, structures and bridge approaches totaling $2.3 million and pavement preservation totaling $3 million.

Billings District Projects 1992-93



Fourteen additional projects costing under $1 million each include lighting, repaving, widening, reconstruction, and structures totaling $4.5 million and highway preservation totaling $3 million.


US 2 Kalispell NE
4.6 miles reconstruction to 4-lane ($3M)
US 93 Kalispell (Idaho St.)
.4 miles reconstruction ($1M)
US 2 Happy's Inn E & W
11.6 miles
reconstruction ($6.1M)
US 2 Swamp Creek-E
12.2 miles
reconstruction ($7.3M)
US 2 Pleasant Valley
8.1 miles
reconstruction ($4.5M)
MT 28 Lonepine N & E
10 miles
reconstruction ($4M)
MT 200 Thompson
River-E
6 miles repaving ($2.1M)
US 93 Ronan-Polson
11.2 miles reconstruction
to 4-lane ($9.6M)
MT 200 Paradise-E
8.1 miles reconstruction ($11.7M)
MT 200 Dixon-Ravalli
7.3 miles reconstruction ($7.7M)
US 93 Ravalli-N
8.2 miles reconstruction to 4-lane ($4.2M)
US 93 Florence-Lolo
8.4 miles reconstruction to 4-lane ($4.2M)
MT 1 Maxville-Drummond
14.3 miles reconstruction ($7.2M)
US 93 Conner-N & S
6.8 miles reconstruction ($4.4M)
US 93 Sula-N & S
7.3 miles reconstruction ($3.6M)
MT 1 Georgetown Lake
3 miles reconstruction ($2M)
US 12 Helena (Euclid Avenue)
2.6 miles mill and
repave ($1.7M)
MT 41 Dillon-E
(Helena St.-N)
2.8 miles reconstruction ($2.1M)
MT 41 Silver Star N & S
7 miles reconstruction ($6M)
US 2 Browning-Cut Bank
22.4 miles reconstruction ($10M)
US 2 Columbia Heights-
Hungry Horse
4.4 miles reconstruction
to 4-lane ($6.9M)
US 89 Dupuyer-N
8.6 miles reconstruction ($3.4M)
US 2 Cut Bank-W
7.8 miles reconstruction ($2.9M)
MT 44 Valier-W
14.3 miles
reconstruction ($5.7M)
MT 80 SE of Fort Benton
1 mile structure and
slide correction ($2.6M)
MT 44 Valier-E
13.6 miles
reconstruction ($11.1M)
MT 200 Sun River Bridge
1.5 miles
widen and repave ($1.4M)
MT 82 Somers-E
6.9 miles
reconstruction ($5.6M)
US 89 Vaughn-Sun River
6.6 miles
reconstruction ($5.4M)
US 93 Somers-Kalispell
7.5 miles reconstruction
to 4-lane ($14.4M)
US 93 Ronan-S
12.3 miles reconstruction to 4-lane ($5.5M)
US 93 Dirty Corner-Ravalli
12.4 miles reconstruction to 4-lane ($5M)
US 93 Evaro-Dirty Corner
8.7 miles reconstruction to 4-lane ($5.1 M)
US 87 Great Falls
(20th St.-S to
Warden Bridge)
1.6 miles recon-
struction ($6.5M)
US 87 Stanford-
E & W
12.9 miles recon-
struction ($6.4M)
US 89 Ringling-N
8.1 miles recon-
struction ($3.9M)
US 287 Cameron N & S
11.2 miles
reconstruction ($7M)
MT 287 Alder-Sheridan
10 miles reconstruction ($7M)
MT 55 Whitehall-Waterloo
12 miles widen and repave ($5M)
US 12 East of Townsend
7.3 miles reconstruction ($4.4M)
US 191
Big Timber-N
7.3 miles recon-
struction ($4M)
US 191 7 miles
N of Big Timber-N
8.4 miles recon-
struction ($3.5M)
US 89 Mission
Interchange-N
6.4 miles recon-
struction ($4.2M)
MT 86 Battleridge Pass N & S
6 miles reconstruction ($4.2M)
Kalispell
Missoula
Great Falls
Helena
Butte
Bozeman
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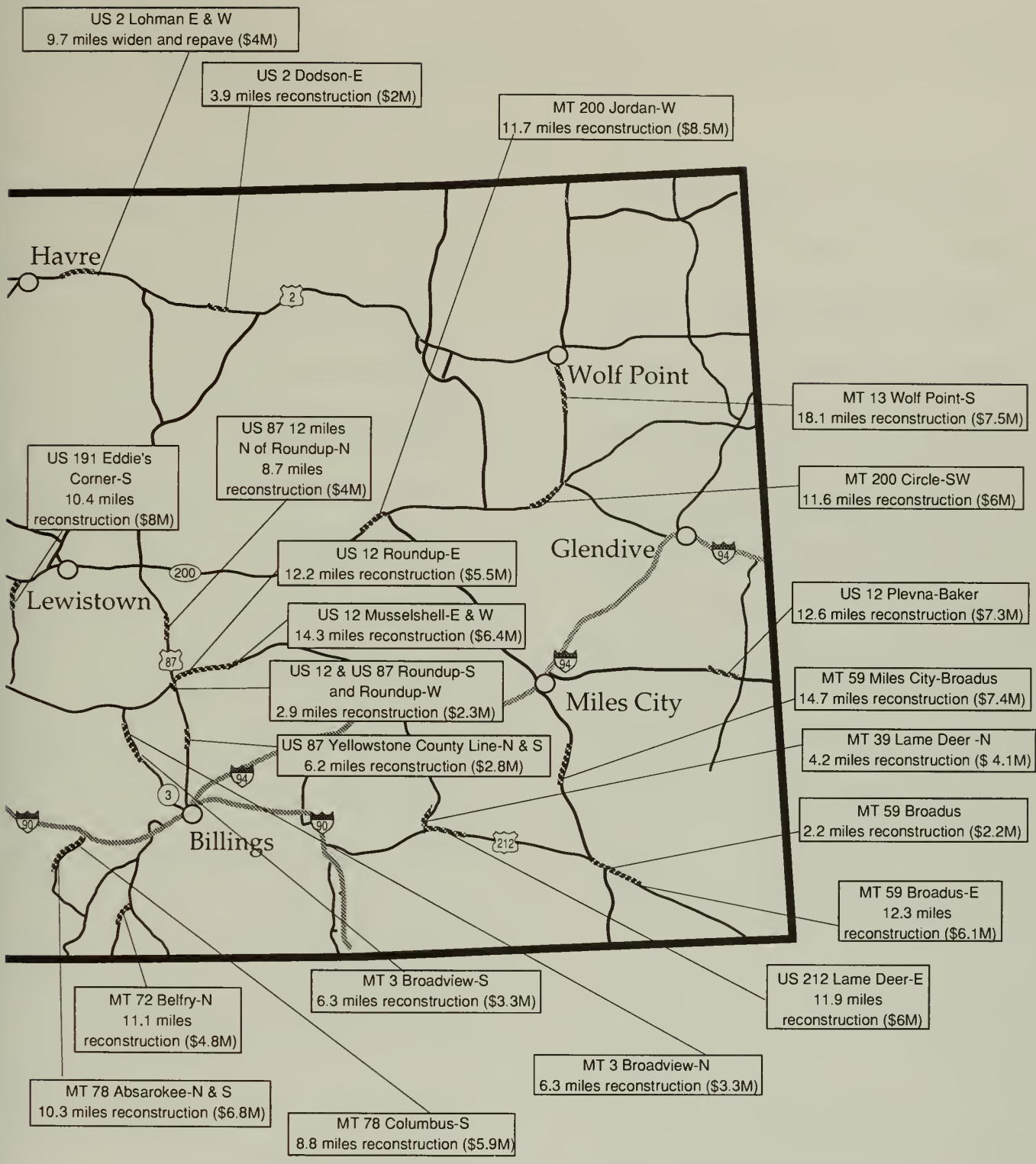

Planned Major Primary System Projects Post '93

These projects are currently being designed. Actual construction will depend on the availability of future federal and state construction funds. (project locations are approximate)

Project Exception Report

Highway projects are scheduled well in advance of when they will be built, and, as a result, some are occasionally delayed or dropped due to funding or design problems or problems related to the purchase of new right-of-way. These projects were scheduled for state fiscal years 90-91 but were delayed.

Location	System, Scope of Work	Reason
I 90 West Billings Interchange	Interstate, Rehabilitation	Delayed due to design and right-of-way problems; now scheduled for 10/91.
MT 200 Dixon-Ravalli	Primary, Reconstruction	Delayed due to funding problems. Now scheduled beyond 9/93.
US 93 Polson-Elmo	Primary, Resurfacing	Delayed due to funding problems; now scheduled for 3/92.
MT 37 Libby-NE	Primary, Resurfacing	Delayed due to funding problems. Now scheduled beyond 9/93.
MT 41 Dillon-N	Primary, Reconstruction	Delayed due to right-of-way acquisition problems; now scheduled for 9/91.
US 191 Bozeman-Four Corners	Primary, Reconstruction	Delayed due to problems getting project into right-of-way status; now scheduled for 7/92.
US 191 Gallatin Gateway-N&S	Primary, Resurfacing	Delayed due to funding problems; now scheduled for 9/91.
MT 200 Rogers Pass	Primary, Widen & Resurface	Delayed due to funding problems; now scheduled for 7/91.
US 87 Loma-N	Primary, Reconstruction	Delayed due to funding problems; now scheduled for 10/92.
US 212 Hammond-NW	Primary, Widen & Resurface	Delayed due to funding problems; now scheduled for 10/91.
MT 16 Culbertson-S	Primary, Reconstruction	Delayed due to funding problems; now scheduled for 10/92.
US 212 Busby-E&W	Primary, Reconstruction	Delayed due to funding problems; now scheduled for 2/92.
US 191 Eddie's Corner-S	Primary, Widen & Resurface	Delayed due to funding problems. Now scheduled beyond 9/93.
US 12 Ryegate-W	Primary, Resurface	Delayed due to funding problems; now scheduled for 3/93.
MT 3 Acton-NW	Primary, Widen & Resurface	Delayed due to funding problems; now scheduled for 2/93.
MT 3 Billings-NW	Primary, Reconstruction	Delayed due to funding and right-of-way problems; now scheduled for 6/93.
S 487 BNRR Overpass-Whitefish	Secondary, Structure	Delayed due to discovery of diesel fuel contamination; rescheduled for 6/92.
S 260 Libby-NW	Secondary, Reconstruction	Due to right-of-way problems, project is inactive; not in letting schedule. County must decide on whether or not to proceed with the project.
S 508 Meadow Cr-S (Yaak River Road)	Secondary, Reconstruction	Delayed due to problems getting project into right-of-way status; now scheduled for 7/91.
S 306 Columbus-N	Secondary, Reconstruction	Delayed due to funding problems; now scheduled for 10/91.

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